

REMARKS

At the time of the Office Action, which was made Final, claims 12-19 and 22-24 were pending. Claims 12-19, 22 and 24 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 7,154,547 to Oda (hereinafter Oda) in view of U.S. Patent No. 6,825,883 to Hata (hereinafter Hata). Claim 23 stands rejected under 35 U.S.C. §103(a) as being obvious over Oda and Hata and further in view of U.S. Patent No. 6,788,338 to Dinev et al. (hereinafter Dinev).

In the present response claim 12 is amended and the balance of claims remain unchanged. It is submitted that the amendments to claim 12 require only a cursory review by the Examiner and necessitate no further search. To this end, the Applicant respectfully requests entry of the present response since it is being submitted in accordance with 37 CFR 1.116 to place the application in form for allowance or better form for appeal.

The Applicant respectfully requests reconsideration in view of the following remarks which touch on the merits. In claim 12 the feature f) regarding the camera's selector has been amended. In particular, the selector feature has been amended to recite that the selector outputs, according to the brightness comparison result from the brightness comparator, either: 1) a chromatic image signal relative to the chromatic sensing element if the brightness of the digital image signal is greater than the predetermined reference brightness; or 2) an achromatic image signal relative to the achromatic sensing element if the brightness of the digital image signal is equal to or smaller than the predetermined reference brightness. Accordingly, the focus signal generator, which is in communication with the selector, can calculate a focal value from one of the chromatic image signal and the achromatic image signal that is output from the selector.

With regard to the Applicant's camera as claimed in claim 12, the Applicant would like to point out that the Applicant's focus signal generator calculates a focal value from the chromatic image signal when the Applicant's camera is used in a normal brightness environment. However, in a low brightness environment, the Applicant's focus signal generator calculates a focal value from the achromatic image signal. Accordingly, automatic focusing can be performed at higher speed under a low brightness environment as shown in FIG. 8 of the present application.

In contrast to the Applicant's camera recited in claim 12, however, neither Oda nor Hata disclose a selector that outputs one of a chromatic image signal and an achromatic image signal according to the brightness of the digital image signal. At best, Oda discloses that "an *estimated* luminance" (emphasis added) is compared with "a preselected threshold value, thereby determining whether or not the estimated luminance value is greater than the threshold value." (col. 12, lines 38-43 of Oda) The Applicant's camera does not rely on an estimated luminance and, instead, as can be fully appreciated from claim 12, the Applicant's camera uses brightness that is determined from the digital image signal, not an estimated value. Although Hata may disclose a focus signal generator as the Office Action alleges, Hata cannot cure Oda in regard to Oda's use of an estimated luminance and not an actual brightness that is measured or calculated from the actual digital image signal. Furthermore, since neither Oda nor Hata disclose a camera that uses an actual brightness that is measured or calculated from the actual digital image signal, therefore, the combination of Oda and Hata does not disclose, teach or suggest a focus signal generator calculating a focal value from one of the chromatic image signal and the chromatic image signal that is output from the selector because the selector outputs one of the aforementioned image signals based on a comparison of the brightness with a reference brightness.

Furthermore, the Applicant's camera compares the determined brightness with a predetermined reference brightness and calculates a focal value based on high frequency components of chromatic or achromatic image signals, which are output based on the determined brightness, without having to change modes or perform further operations. That is, the Applicant's camera can focus quickly even when using the camera in a low brightness environment. In contrast to the Applicant's camera, Oda discloses that "If the estimated luminance value is smaller than the threshold value, then the controller 22 ... sets up the low illumination mode." (col. 12, lines 43-46 of Oda) As described in Oda, "the signal processor 20 uses on the cell signals or both the cell signals and other R, G and B pixel signals ... to estimate the luminance level of the scene." (col. 12, lines 56-59) To this end, it can be appreciated that Oda wastes time during photographing by entering the low illumination mode after a comparison, which determines that the camera is being used in a low ambient lighting environment relative to an "estimated luminance value."

In re Appln. of Myoung-hoon Park
Application No. 10/694,587
Response to Final Office Action of October 18, 2007

The Applicant respectfully requests reconsideration in view of the foregoing remarks. However, if a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned.

Respectfully submitted,

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